



FORM PTO-1449
(REV. 7-90)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.
FORSK 3.0-001 FWC
CIP CONT FWC DIV

SERIAL NO.
08/340,664

LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)

APPLICANT
Gautvik et al.

FILING DATE
November 16, 1994

GROUP
1812

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
JS	AA 4 5 3 2 2 0 7	7/85	Brewer et al.	435	69.4	
	AB 4 3 9 4 4 4 3	7/83	Weissman et al.	435	6	
	AC 4 3 3 8 3 9 7	7/82	Gilbert et al.	435	69.1	
	AD 4 5 8 8 6 8 4	5/86	Brake	435	69.4	
	AE 4 5 4 6 0 8 2	10/85	Kurjan et al.	435	69.4	
	AF 4 2 3 7 2 2 4	12/80	Cohen et al.	435	69.1	
	AG 4 4 6 8 4 6 4	8/84	Cohen et al.	435	320.1	
	AH 4 3 6 6 2 4 6	12/82	Riggs	435	69.8	
	AI 4 4 2 5 4 3 7	1/84	Riggs	435	320.1	
	AJ 4 2 6 4 7 3 1	4/81	Shine	435	91.41	
	AK					

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AL 84 0 1 1 7 3	3/84	PGT			
AM 1 3 9 0 7 6	5/85	European Patent Application			
AN 2 0 9 4 8 3 3	9/82	Great Britain			
AO 2 0 9 2 5 9 6	8/82	Great Britain			
AP 0 3 8 1 8 3	10/81	European Patent Application			

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Kronenberg et al., "Studies of Parathyroid Hormone Secretion Using Recombinant DNA Technology," Endocrine Control of Bone and Calcium Metabolism, 217 (1984)
AS	Born et al., (Abstract) "Expression of Human Preproparathyroid Hormone in E. coli and Yeast," Calcified Tissue International, Vol. 35, 679 (1983)

EXAMINER

J. Spector

DATE CONSIDERED

5/16/96

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Sheet <u>2</u> of <u>9</u>	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				ATTY. DOCKET NO. FORSK 3.0-001 FWC CIP CONT FWC DIV SERIAL NO. 08/340,664	
				APPLICANT Gautvik et al.	
				FILING DATE November 16, 1994	
				GROUP 1812	

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
AA							
AB							
AC							
AD							
AE							
AF							
AG							
AH							
AI							
AJ							
AK							

FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
AL	1 2 3 5 4 4	10/84			YES	NO	
AM							
AN							
AO							
AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
AR AS	Born et al., (Abstract) "Expression of Human Preproparathyroid Hormone in E. coli and Yeast," <u>Calcified Tissue International</u> , Vol. 36 (Suppl. 2), 287 (1984) Hendy et al., "Nucleotide Sequence of Cloned cDNAs Encoding Human Preproparathyroid Hormone," <u>Proc. Natl. Acad. Sci. USA</u> , Vol. 78, 7365 (1981)

EXAMINER <i>J. Spector</i>	DATE CONSIDERED 5/16/96
-------------------------------	----------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ATTY. DOCKET NO.

Forsk 3.0-001 FWC
CIE CONT FWC DIV

SERIAL NO.

09/340,664

LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT

Gautvik et al.

FILING DATE

November 16, 1994

GROUP

1812

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Breyel et al., "Synthesis of Mature Human Parathyroid Hormone in <u>Escherichia coli</u> ," Third European Congress On Biotechnology, Vo. III, 363 (1984)
AS	Breyel et al., (Abstract) "Synthesis of Mature Human Parathyroid Hormone in <u>Escherichia coli</u> ," <u>Calcified Tissue International</u> , Vol. 36 (Suppl. 2),
XX	297 (1984).

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. FORSK 3.0-001 FWC CIP CONT FWC DIV		SERIAL NO. 08/340,664	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Gautvik et al.		FILING DATE November 16, 1994	
				GROUP		1812	

U.S. PATENT DOCUMENTS								
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE		
AA								
AB								
AC								
AD								
AE								
AF								
AG								
AH								
AI								
AJ								
AK								

FOREIGN PATENT DOCUMENTS								
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION			
					YES	NO		
AL								
AM								
AN								
AO								
AP								

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
AR	Born et al., (Abstract) "Expression And Processing of Human Preproparathyroid Hormone in <u>Escherichia coli</u> ," <u>Experientia</u> , Vol. 39, 659 (1983).
AS	Handy, (Abstract) "Cloning of Human Parathyroid Hormone mRNA and Gene," <u>Calcified Tissue International</u> , Vol. 36, 286 (1984).
AT	McDevitt et al., (Abstract) "Isolation of Human Parathyroid Hormone Genes," <u>Calcified Tissue International</u> , Vol. 31, 74 (1980).

EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		Sheet <u>5</u> of <u>9</u>	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)		ATTY. DOCKET NO. FORM 2.0-CC1 TWO CIP CONT FWC DIV	SERIAL NO. 08/340,664
		APPLICANT Gautvik et al.	
		FILING DATE November 16, 1994	GROUP 1812

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
AA							
AB							
AC							
AD							
AE							
AF							
AG							
AH							
AI							
AJ							
AK							

FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
					YES	NO	
AL							
AM							
AN							
AO							
AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
AR	Cordon et al., (Abstract) "Molecular Cloning and Structural Analysis of Near Full-Length DNA Complementary to the mRNA Coding for Bovine Parathyroid Hormone," Fed. Proc., 39, 947 (1980).
XX	Vasicek et al., "Nucleotide Sequence of the Human Parathyroid Hormone Gene," Proc. Nat'l. Acad. Sci., Vol. 80, 2127 (1983).
AS	
XX	

EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. FORSK 3.0-001 FWC CIP CONT FWC DIV		SERIAL NO. 08/340,664	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Gautvik et al.		FILING DATE November 16, 1994	
				GROUP 1812			

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
AA							
AB							
AC							
AD							
AE							
AF							
AG							
AH							
AI							
AJ							
AK							

FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
					YES	NO	
AL							
AM							
AN							
AO							
AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)	
AR	Kronenberg et al., "Cloning and Nucleotide Sequence of DNA Coding for Bovine Preproparathyroid Hormone," <u>Proc. Nat'l. Acad. Sci.</u> , Vol. 76, 4981 (1979).
AS	Sung et al., "Hybrid Gene Synthesis: Its Application to the Assembly of DNA Sequences Encoding the Human Parathyroid Hormones and Analogues,"
XX	<u>Biochem. Cell Biol.</u> , Vol. 64, 133 (1986).

EXAMINER	DATE CONSIDERED
----------	-----------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1409 (REV. 7-80)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. FORSK 3.0-001 FWC CIP CONT FWC DIV APPLICANT Gautvik et al.		SERIAL NO. 08/340,664	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				FILING DATE November 16, 1994		GROUP 1812	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
AA							
AB							
AC							
AD							
AE							
AF							
AG							
AH							
AI							
AJ							
AK							
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
AL							
AM							
AN							
AO							
AP							
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
AR	Keutmann et al., "Complete Amino Acid Sequence of Human Parathyroid Hormone," <u>Biochemistry</u> , Vol. 17, 5723 (1978).						
AS	Naylor et al., "Human Parathyroid Hormone Gene (PTH) is on Short Arm of Chromosome II," <u>Somatic Cell Genetics</u> , Vol. 9, (1983).						
XX							
EXAMINER				DATE CONSIDERED			
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>							

FORM PTO-1449 1/12/79, 7-40		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. FORSK 3.0-001 FWC CIP CONT FWC DIV		Sheet <u>8</u> of <u>9</u> SERIAL NO. 08/340,664	
LIST OF PRIOR ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Gautvik et al.		FILING DATE November 16, 1994	
				GROUP 1812			
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AL						
	AM						
	AN						
	AO						
	AP						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AR	Kronenberg et al., (Abstract) "Structural Analysis of the Human Parathyroid Hormone Gene," <u>Calcified Tissue International</u> , Vol. 33, 322 (1981).					
	AS	Hellerman et al., "Secretion of Human Parathyroid Hormone from Rat Pituitary Cells Infected with a Recombinant Retrovirus Encoding					
	XX	Preproparathyroid Hormone," <u>Proc. Nat'l. Acad. Sci.</u> , Vol. 81, 5340 (1984).					
EXAMINER				DATE CONSIDERED			
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>							

ATTY. DOCKET NO.
FORSK 3.0-001 FWC
CIP CONT FWC DIV
APPLICANTSheet 9 of
SERIAL NO.
08/340,664LIST OF PRIOR ART CITED BY APPLICANT
(Use several sheets if necessary)

Gautvik et al.

FILING DATE
November 16, 1994GROUP
1812

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING IF APPROP
AA						
AB						
AC						
AD						
AE						
AF						
AG						
AH						
AI						
AJ						
AK						

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
AL					
AM					
AN					
AO					
AP					

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AR	Brake et al., Alpha-Factor-directed synthesis and secretion of mature foreign proteins in <i>Saccharomyces cerevisiae</i> , 3/28/84
AS	Cantrell et al., cDNA Cloning, Expression, and Activity of Human Granulocyte-Macrophage Colony-Stimulating Factor, 1987
AT	Arnst, J. F., Efficient Secretion and Processing of Heterologous Protein in <i>Saccharomyces cerevisiae</i> is mediated solely by the Pre-Segment of Alpha-Factor Precursor, DNA 7 (1988)

EXAMINER

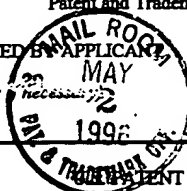
DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449
(Rev. 7-80)U.S. Department of Commerce
Patent and Trademark OfficeAttorney Docket No.
GAUTVIK 3.0-001 FWC CIP
CONT FWC DIVSerial No.
08/340,664

LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

Applicant
Gautvik et al.Filing Date
November 16, 1994Group
1312




PATENT DOCUMENTS

*EXAMINER INITIALS		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

FOREIGN PATENT DOCUMENTS

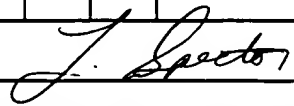
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL							
	AM							
	AN							
	AO							
	AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR		Watson, James D., Tooze, John and Kurtz, David T., <u>Recombinant DNA, A Short Course</u> , Scientific American Books, pp. 2-16, New York, ©1983.
	AS		Old, R.W. and Primrose, S.B., <u>Principles of Gene Manipulation, an Introduction to Genetic Engineering</u> , Blackwell Scientific Publications, 3rd ed., pp. 183-202, ©1985.
	AT		Esposito, Michael S., <u>Yeast Molecular Biology - Recombinant DNA</u> , Noyes Publications, pp. 93-287, ©1984.

EXAMINER

DATE CONSIDERED



5/15/96

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.